CHAP	2	SP 108	SERVICING PROCEDURES	AP 101B-1000-5A3 E (Section 1 (1st Edition)
TRADE		FLT SYST	LIGHTNING	
SHEET	1	OF 54 SHEET/S	3 5 6	AL NO 12 DATE
TITLE	Flight Control System - Functional Test			SERVICING RECORD - RAF F.2988B AC NO ..... DATE .....

TIME: ACT / EST

Safety and Servicing Notes are to be complied with throughout the work detailed on this Card.

Special Tools and Equipment

Test Set Type 391.
Test Set Type 8A.
Test Set Pitot/Static Mk 4.
Test Set Mk 1A MRG (Simulator).
Test Set First Line Mk 2 MRG.

NB.1 During this Procedure, the aircraft power supply is to be set to 'OFF' before plugging into or unplugging from aircraft test socket 'L'.

NB 2 Mod 4146 incorporates indications of autopilot failure; if embodied the Attention Getter and Cancel Alarm buttons will flash and Panel 'AP' on the Standard Warning Panel will illuminate. During Interlock Checks, all such indications are to be cancelled.

	(1) MAN HOURS	(2) TRADESMEN INIT	(3) BRIEF DETAILS OF OR SUSPECTED DEFECT	(4) F. 720B NO	(5) N.C.O. INITIALS

AIRFRAME

1. Preparation

1.1	Control surface protractors.	Fit to control surfaces.
1.2	Hydraulic ground rig.	(i) Connect to aircraft. (ii) Set to 'ON'.
1.3	Control surfaces.	
	(a) All surfaces.	Ensure unobstructed.
	(b) Ailerons.) (c) Rudder.)	Trim to neutral
	(d) Tailplane.	Trim to rigging position. (8 degrees 56 minutes).
1.4	Tailplane feel system.	Switch on.

Continued

ASSOCIATED PROCEDURE CARDS

SP 107(NI)

ASSOCIATED TRADES

AF AC

SP NO 108

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

2. Preparation

2.1	Mk 2 MRG.	Disconnect connectors J204 and J203 on electronic unit.
2.2	Mk 1 MRG. (If fitted).	Disconnect connectors FS27 and FS28.
2.3	Mk 1A MRG simulator.	Connect to aircraft connectors previously removed from MRG outlets.
2.4	Mk 2 MRG first line test set.	Connect to electronic unit test socket Q.
2.5	Test set Type 8A.	
	(a) Connector PL2.	Connect to FC5 on FCC.
	(b) Connector PL3.	Connect to aircraft test socket F and L.
2.6	External power supplies. (A.c. and d.c.).	(i) Ensure connected to aircraft. (ii) Switch on.
2.7	Instrument master switch.	Set to 'ON'.
2.8	MRG On/Off switch.	
▶2.9	Relay 'F'.	Press.
2.10	Attitude indicator warning flag.	Ensure out of view.
2.11	Mk 4 Pitot/ Static test set.	
	(a) Pitot/ Static adapters.	Connect to pressure head.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

2. Preparation (Contd)

2.11 Mk 4 Pitot/Static test set. (Contd)

(b)	Balance valve.	Close.
(c)	Static valve.	Close.
(d)	Pitot valve.	Close.
(e)	Vent to atmos valve.	Close.
(f)	Pump On/Off switch.	Set to 'ON'.
(g)	Pitot valve.	Adjust to set test set ASI to between 320 and 380 kts.

AIR COMMS

3. Preparation

3.1 Test set type 391.

(a)	Set.	Position as close to localizer aerial as possible.
(b)	Supply.	Connect, ensuring correct polarity.
(c)	Switch.	Set to 'ON'.

3.2 ILS master switch. Set to 'ON'.

3.3 ILS channel switch. Set working frequency of test set.

FLT SYST

NB During Item 4 the Pitot/Static test set ASI indication is to be maintained at between 320 and 380 knots.

4. Interlock Checks

4.1 PCU.

(a)	Master switch.	Set to 'OFF'.
(b)	Stab switch.	Set to 'OFF'.
(c)	Supplies M1.	Ensure show off.
(d)	Mode M1.	Ensure show off.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

4. Interlock Check (Contd)

4.2	FD/AP switch.	Set to 'OFF'.
4.3	FD bead.	Ensure at top right.
4.4	PCU.	
	(a) Master switch.	(i) Set to 'ON'. (ii) Allow 3 minutes warm up period.
	(b) Supplies M1.	Ensure shows Black.
	(c) Mode M1.	Ensure shows Off.
4.5	FD bead.	Ensure remains at top right.
4.6	PCU attitude switch.	Select.
4.7	FD/AP switch.	Set to 'AP'.
4.8	FD bead.	Ensure remains at top right.
4.9	PCU.	
	(a) Supplies M1. (b) Mode M1.	Ensure show Off.
	(c) Stab switch.	Set to 'STAB'.
	(d) Supplies M1. (e) Mode M1.	Ensure show Off.
4.10	FD bead.	Ensure remains at top right.
4.11	PCU.	
	(a) Stab switch. (b) Master switch.	Set to 'OFF'.
4.12	FD/AP switch.	(i) Set to 'OFF'. (ii) Set to 'AP'.
4.13	PCU.	
	(a) Stab switch.	Set to 'STAB'.
	(b) Master switch.	Set to 'ON'.
	(c) Supplies M1. (d) Mode M1.	Ensure show Off.
4.14	FD bead.	Ensure at top right.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

4. Interlock Checks (Contd)

4.15	PCU. (a) Stab switch. (b) Master switch.	Set to 'OFF'.
4.16	FD/AP switch.	(i) Set to 'OFF'. (ii) Set to 'AP'.
4.17	PCU. (a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
	(c) Supplies M1. (d) Mode M1.	Ensure show Off.
4.18	FD bead.	Ensure at top right.
4.19	PCU. (a) Master switch. (b) Stab switch.	Set to 'OFF'.
4.20	FD/AP switch.	Set to 'OFF'.
4.21	PCU stab switch.	Set to 'STAB'.
4.22	FD/AP switch.	Set to 'AP'.
4.23	PCU. (a) Master switch.	Set to 'ON'.
	(b) Supplies M1. (c) Mode M1.	Ensure show Off.
4.24	FD bead.	Ensure at top right.
4.25	PCU. (a) Stab switch. (b) Master switch.	Set to 'OFF'.
4.26	FD/AP switch.	Set to 'OFF'.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

4. Interlock Checks (Contd)

4.27	PCU.	
	(a) Stab switch.	Set to 'STAB'.
	(b) Master switch.	Set to 'ON'.
4.28	FD/AP switch.	Set to 'AP'.
4.29	FD bead.	Ensure at top right.
4.30	PCU.	
	(a) Supplies M1.	Ensure show Off.
	(b) Mode M1.	
4.31	PCU.	
	(a) Stab switch.	Set to 'OFF'.
	(b) Master switch.	
4.32	FD/AP switch.	Set to 'OFF'.
4.33	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	
4.34	FD/AP switch.	Set to 'AP'.
4.35	FD bead.	Ensure moves to centre PLUS OR MINUS 1/16 in.
4.36	PCU.	
	(a) Supplies M1.	Ensure shows Black.
	(b) Mode M1.	Ensure shows Auto.
	(c) Attitude switch.	Ensure cannot be cancelled by depressing.
4.37	FD/AP switch.	Set to 'OFF'.
4.38	FD bead.	Ensure at top right.
4.39	PCU.	
	(a) Glide switch.	Ensure cannot be selected by depressing.
	(b) Climb switch.	Select and ensure attitude switch cancels.
	(c) Height switch.	Select and ensure climb switch cancels.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

4. Interlock Checks (Contd)

4.40	FD/AP switch.	Set to 'AP'.
4.41	PCU.	
	(a) Heading switch.	Select, then cancel.
	(b) Climb switch.) (c) Glide switch.) (d) Attitude switch.)	Ensure cannot be selected by depressing.
	(e) Track switch.	Select and ensure height switch cancels.
	(f) Climb switch.) (g) Attitude switch.) (h) Height switch.) (j) Heading switch.)	Ensure cannot be selected by depressing.
	(k) Glide switch.	Select.
	(l) Track switch.	Ensure remains selected.
	(m) Climb switch.) (n) Attitude switch.) (p) Height switch.) (q) Heading switch.)	Ensure cannot be selected by depressing.
4.42	FD/AP switch.	Set to 'OFF'.
4.43	PCU.	
	(a) Glide switch.	Ensure cancels.
	(b) Track switch.	Ensure remains selected.
	(c) Heading switch.	Select and ensure height switch is automatically selected.
	(d) Track switch.	Ensure cancels.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

4. Interlock Checks (Contd)

4.44	FD/AP switch.	Set to 'FD'.
4.45	PCU.	
	(a) Climb switch.	Ensure cannot be selected by depressing.
	(b) Attitude switch.	
	(c) Glide switch.	
	(d) Heading switch.	Cancel, using key lip, then reselect.
	(e) Mode M1.	Ensure shows DIR .
	(f) Stab switch.	Set to 'OFF'.
	(g) Master switch.	
4.46	FD/AP switch.	Set to 'OFF'.
4.47	PCU.	
	(a) Mode M1.	Ensure show 'OFF'.
	(b) Supplies M1.	
4.48	FD bead.	Ensure at top right.
4.49	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
	(c) Attitude switch.	Set to 'ATTITUDE'.
4.50	Test set Type 8A M2 measure switch.	(i) Set to 'AP/AIL'N'. (ii) Note indication of M2.
4.51	FD/AP switch.	Set to 'AP'.
4.52	Test set Type 8A.	Note indication of M2.
4.53	Ailerons.	Note any movement.

SMS 17A

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

4. Interlock Checks (Contd)

4.54	This Sub-item is applicable if M2 indication differs between Sub-items 4.50 and 4.52 or if aileron movement is noted in Sub-item 4.53.	
	PCU.	Set to FD/AP switch alternately to 'AP' and 'OFF' whilst adjusting BAC trimpot RV3 until M2 indication and aileron position do not change on setting switch to 'AP'.
4.55	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
	(c) Attitude switch.	Select.
	(d) Supplies M1.	Ensure shows Black.
	(e) Mode M1.	Ensure shows 'OFF'.
4.56	FD/AP switch.	Set to 'AP'.
4.57	PCU Mode M1.	Ensure shows Auto.
4.58	'G' Test switch.	Set to '3G' and release.
4.59	PCU.	
	(a) Supplies M1. (b) Mode M1.	Ensure shows Off.
	(c) Master switch. (d) Stab switch.	Set to 'OFF'.
4.60	FD/AP switch.	Set to 'OFF'.
4.61	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
	(c) Supplies M1.	Ensure shows Black.
	(d) Mode M1.	Ensure shows Off.
4.62	FD/AP switch.	Set to 'AP'.
4.63	PCU Mode M1.	Ensure shows Auto.
4.64	'G' Test switch.	Set to 'OG' and release.

NAV INSTRUMENTS

4. Interlock Checks (Contd)

4.65	PCU. (a) Supplies M1. (b) Mode M1.	Ensure shows Off.
	(c) Master switch. (d) Stab switch.	Set to 'OFF'.
4.66	FD/AP switch.	Set to 'OFF'.
NB	Sub-items 4.67 to 4.72 inclusive are applicable only to Aircraft Post Command Mod 0213/STC and 0214/STC.	
4.67	PCU. (a) Mode keys. (b) Master switch. (c) Stab switch.	De-select all modes. Set to 'ON'. Set to 'STAB'.
4.68	FD/AP switch.	Set to 'AP'.
4.69	PCU. (a) Supplies M1. (b) Mode M1.	Ensure shows Black. Ensure shows Off.
4.70	FD bead.	Ensure at top right.
4.71	PCU. (a) Master switch. (b) Stab switch.	Set to 'OFF'.
4.72	FD/AP switch.	Set to 'OFF'.
5.	Dither setting.	Carry out SP107(NI).
NB	In Item 6 the Pitot/Static test set ASI indication is to be maintained at 320 knots.	

6. Functional Checks (Part A)

6.1	Test set Type 8A. (a) M1 measure switch. (b) Rate gyro switch.	Set to 'RATE GYRO'. Set to 'PITCH'.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

6. Functional Checks (Part A) (Contd)

6.2	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
6.3	Test set Type 8A.	
	(a) Meter M1.	Check after 1 minute indicates less than 200 mA (500 mA scale).
	(b) Rate gyro switch.	Set to 'YAW'.
	(c) Meter M1.	Check after 1 minute indicates less than 200 mA (500 mA scale).
	(d) Rate gyro switch.	Set to 'ROLL'.
	(e) Meter M1.	Check after 1 minute indicates less than 200 mA (500 mA scale).
6.4	Control surfaces.	
	(a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
6.5	PCU Stab switch.	Set to 'OFF'.
6.6	Test set Type 8A.	
	(a) M2 measure switch.	Set to 'RG ROLL'.
	(b) Deflection increase rate gyro switch.	Adjust until meter M2 indicates 6.5V. (15V scale).
6.7	PCU Stab switch.	Set to 'STAB'.
6.8	Test set Type 8A precess rate gyro switch.	Depress and hold.
6.9	Ailerons.	Check Port and Starboard trailing edges move up and down respectively approximately 0.5 degrees and then decay to neutral.

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

6. Functional Checks (Part A) (Contd)

6.10	Precess rate gyro switch.	Release.
6.11	Ailerons.	Check Port and Starboard trailing edges move down and up respectively approximately 0.5 degrees and then decay to neutral.
6.12	Nav display unit heading knob.	Depress and turn to set selected heading pointer to 'FIXED LUBBER'.
6.13	PCU track switch.	Select.
6.14	FD/AP switch.	Set to 'AP'.
6.15	PCU mode M1.	Ensure shows Auto.
6.16	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
6.17	Test set Type 8A precess rate gyro switch.	Depress and hold.
6.18	Ailerons.	Check Port and Starboard trailing edges move respectively up and down approximatley 1.5 degrees and then partially decay towards neutral.
6.19	Precess rate gyro switch.	Release.
6.20	Ailerons.	Check both trailing edges return to neutral.
6.21	FD/AP switch.	Set to 'OFF'.
6.22	PCU attitude switch.	(i) Select. (ii) Wait 20 seconds.
6.23	FD/AP switch.	Set to 'AP'.
6.24	Test set Type 8A precess rate gyro switch.	Depress and hold.

Continued overleaf

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

6. Functional Checks (Part A) (Contd)

6.25	Ailerons.	Check Port and Starboard trailing edges move respectively up and down approximately 1 degree from neutral.
6.26	Precess rate gyro switch.	Release.
6.27	Ailerons.	Check both trailing edges return to neutral.
6.28 6.29	FD/AP switch. PCU Stab switch.	Set to 'OFF'.
6.30	Test set Type 8A.	
	(a) Rate gyro switch.	Set to 'PITCH'.
	(b) M2 measure switch.	Set to 'RG PITCH'.
	(c) Deflection increase rate rate gyro switch.	Adjust until meter M2 indicates 4.875V (15V scale).
6.31	PCU stab switch.	Set to 'STAB'.
6.32	Test set Type 8A precess rate gyro switch.	Depress and hold.
6.33	Tailplane.	Check leading edge moves up approximately 0.75 degrees and then decays to datum.
6.34	Precess rate gyro switch.	Release.
6.35	Tailplane.	Check leading edge moves down approximately 0.75 degrees and then decays to datum.

SMS 17A

Continued

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

6. Functional Checks (Part A) (Contd)

6.36	PCU track switch.	(i) Select. (ii) Wait 10 seconds.
6.37	FD/AP switch.	Set to 'AP'.
6.38	Test set Type 8A precess rate gyro switch.	Depress and hold.
6.39	This Sub-item is not applicable to aircraft fitted with a Type D or E FCC.	
	Tailplane.	Check leading edge moves up approximately 1.5 degrees and then partially decays to datum.
6.40	This Sub-item is applicable only to aircraft fitted with a Type D or E FCC.	
	Tailplane.	Check leading edge moves up approximately 0.75 degrees and then partially decays to datum.
6.41	Precess rate gyro switch.	Release.
6.42	Tailplane.	Check leading edge returns to datum.
6.43	FD/AP switch.	Set to 'OFF'.
6.44	PCU attitude switch.	(i) Select. (ii) Wait 10 seconds.
6.45	FD/AP switch.	Set to 'AP'.
6.46	Test set Type 8A precess rate gyro switch.	Depress and hold.
6.47	Tailplane.	Check leading edge moves up approximately 0.75 degrees and then decays to datum in approximately 1.5 seconds.
6.48	Precess rate gyro switch.	Release.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

6. Functional Checks (Part A) (Contd)

6.49	FD/AP switch.)	
6.50	PCU stab switch.)	Set to 'OFF'.
6.51	Test set Type 8A.	
	(a) Rate gyro switch.	Set to 'YAW'.
	(b) M2 measure switch.	Set to 'RG YAW'.
	(c) Deflection increase rate gyro switch.	Adjust until meter M2 indicates 3,9V. (15V scale)
6.52	PCU stab switch.	Set to 'STAB'.
6.53	Test set Type 8A precess rate gyro switch.	Depress and hold.
6.54	Rudder.	Check trailing edge moves approximately 1.2 degrees to Starboard and then decays to neutral.
6.55	Precess rate gyro switch.	Release.
6.56	Rudder.	Check trailing edge moves approximately 1.2 degrees to Port and then decays to neutral.
6.57	PCU track switch.	(i) Select. (ii) Wait 20 seconds.
6.58	FD/AP switch.	Set to 'AP'.
6.59	Test set Type 8A precess rate gyro switch.	Depress and hold.
6.60	Rudder.	Check trailing edge moves approximately 1.2 degrees to Starboard and then decays to neutral.
6.61	Precess rate gyro switch.	Release.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

6. Functional Checks (Part A) (Contd)

6.62	Rudder.	Check trailing edge moves approximately 1.2 degrees to Port and then decays to neutral.
6.63	FD/AP switch.	Set to 'OFF'.
6.64	PCU. (a) Stab switch. (b) Master switch.	Set to 'OFF'.
6.65	FD bead.	Ensure at top right.
6.66	PCU. (a) Supplies M1. (b) Mode M1.	Ensure show Off.

NB In Item 7 the Pitot/Static test set ASI indication is to be maintained at 320 knots.

7. Functional Check (Part B)

7.1	This Sub-item is applicable only to aircraft Pre Mod 2597.	
	Flight control computer.	Disconnect connector FC1, connect jumper cable (Fig 1) between FC1 and computer.
7.2	This Sub-item is applicable only to aircraft Post Mod 2597.	
	Test socket 'J'.	Remove shorting plug.
7.3	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
	(c) Supplies M1.	Ensure shows Black.
	(d) Mode M1.	Ensure shows Off.
7.4	FD bead.	Ensure at top right.
7.5	PCU attitude switch.	Select.

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

7. Functional Check (Part B) (Contd)

7.6	Simulator controls.	
	(a) F. relay.	Depress.
	(b) Bank.	Rotate to 10 degrees RWD.
7.7	Roller blind.	Ensure indicates 10 degrees RWD.
7.8	FD/AP switch.	Set to 'AP'.
7.9	PCU mode M1.	Ensure shows Auto.
7.10	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
7.11	Control surfaces.	
	(a) Ailerons.	(i) Ensure at neutral PLUS OR MINUS 0.4 degrees.
		(ii) Record position as datum.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
7.12	Simulator bank control.	Rotate to 20 degrees RWD.
7.13	Roller blind.	Ensure indicates 20 degrees RWD.
7.14	Control surfaces.	
	(a) Ailerons.	Check Port and Starboard trailing edges move respectively up and down smoothly 2 plus 0.4 minus 0.6 degrees.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
7.15	FD bead.	Ensure has moved 0.1 PLUS OR MINUS 0.05 in. to left of centre.
7.16	Simulator bank control.	Rotate slowly to 10 degrees RWD.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

7. Functional Check (Part B) (Contd)

7.17	Control surfaces.	
	(a) Ailerons.	Check both trailing edges return smoothly to datum PLUS OR MINUS 0.3 deg.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
7.18	FD bead.	Ensure return to centre PLUS OR MINUS 1/16 in.
7.19	Simulator bank control.	Rotate slowly to 0 degrees.
7.20	FD bead.	Ensure has moved 0.1 PLUS OR MINUS 0.05 in.to right of centre.
7.21	Control surfaces.	
	(a) Ailerons.	Check Port and Starboard trailing edges move respectively down and up smoothly 2 plus 0.4 minus 0.6 degrees.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.

8. Functional Check (Part C)

NB: During Sub-item 8.1 to 8.39 inclusive, the Pitot/Static test set ASI indication is to be maintained at 320 knots.

8.1	PCU BAC.	Rotate anti-clockwise to first marked position.
8.2	FD bead.	Ensure returns smoothly to centre PLUS OR MINUS 1/16 in.
8.3	Control surfaces.	
	(a) Ailerons.	Check both trailing edges return smoothly to datum PLUS OR MINUS 0.3 degs.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.4	PCU BAC.	Return to centre.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.5	FD/AP switch.)	
8.6	PCU stab)	Set to 'OFF'.
	switch.)	
8.7	Test set Type 8A.	
	(a) M2 measure switch.	Set to 'RG ROLL'.
	(b) Deflection increase rate gyro switch.	Adjust until meter M2 indicates 6.5V. (15V scale).
8.8	PCU stab switch.	Set to 'STAB'.
8.9	FD/AP switch.	Set to 'AP'.
8.10	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
8.11	Test set Type 8A.	
	(a) Rate gyre switch.	Set to 'ROLL'.
	(b) Precess rate gyro switch.	Depress and hold.
8.12	FD bead.	Ensure does not move.
8.13	Control surfaces.	
	(a) Ailerons.	Check Port and Starboard trailing edges move respectively up and down 1 plus 0.2 minus 0.3 degrees from datum.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.14	Precess rate gyro switch.	Release.
8.15	FD bead.	Ensure does not move.
8.16	Control surfaces.	
	(a) Ailerons.	Check both trailing edges return smoothly to datum PLUS OR MINUS 0.3 degrees.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.17	PCU VSC.	Rotate clockwise to end of travel.
8.18	FD bead.	Ensure moves smoothly up 0.25 PLUS OR MINUS 0.1 in.

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.19	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Check leading edge moves smoothly down 1 PLUS OR MINUS 0.2 degrees.
8.20	PCU VSC.	Return to centre detent.
8.21	FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
8.22	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.23	Simulator elevation control.	Rotate slowly to 5 degrees NU.
8.24	FD bead.	Ensure moves down 0.2 PLUS OR MINUS 0.05 in.
8.25	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure leading edge moves up 1 PLUS OR MINUS 0.2 degrees.
8.26	FD/AP switch.	Set to 'OFF'.

NB A period of 10 seconds is to elapse before carrying out Sub-item 8.29.

8.27	FD bead.	Ensure moves to top right.
8.28	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.29	FD/AP switch.	Set to 'FD'.
8.30	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
8.31	Simulator elevation control.	Rotate slowly to 0 degrees.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.32	FD bead.	Ensure moves up 0.2 PLUS OR MINUS 0.03 in.
8.33	Control surfaces.	
	(a) Aileron.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.34	FD/AP switch.	Set to 'OFF'.
8.35	FD bead.	Ensure moves to top right.
8.36	PCU.	
	(a) Stab switch.) (b) Master switch.)	Set to 'OFF'.
	(c) Supplies M1.) (d) Mode M1.)	Ensure indicates 'OFF'.
8.37	Test socket 'J'.	Refit.
8.38	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
	(c) Supplies M1.	Ensure indicates black.
	(d) Mode M1.	Ensure indicates 'OFF'.
8.39	Height switch.	Select.
8.40	Pitot/Static test set.	
	(a) Pump On/Off switch.	Set to 'OFF'.
	(b) Vent to atmos valve.	(i) Open. (ii) Allow simulated airspeed to reduce to zero. (iii) Ensure zero altitude indicated. (iv) Close.
	(c) Pitot valve.) (d) Static valve.)	Close.
	(e) Balance valve.	(i) Open. (ii) Ensure simulated airspeed and altitude indicate zero.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.40	Pitot/Static test set. (Contd)		
	(f) Pump On/Off switch.	Set to 'ON'.	
	(g) Static valve.	(i) Open carefully to simulate altitude of 1500 ft.	
		(ii) Operate in conjunction with vent to atmos valve to reduce simulated altitude to 1000 ft.	
8.41	FD/AP switch.	Set to 'AP'.	
8.42	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.	
	(c) Tailplane.	Note position.	
8.43	Vent to atmos valve.	Open carefully to reduce simulated altitude to 750 ft.	
8.44	FD bead.	Ensure moves up 0.75 PLUS OR MINUS 0.03 in.	
8.45	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.	
	(c) Tailplane.	Check leading edge moves down 0.75 degrees in approximately 5 seconds. Note: Adjust trim potentiometer on front face of FCC if rate of movement is unsatisfactory (Types C, D and E only).	
8.46	FD/AP switch.	Set to 'OFF'.	
8.47	Vent to atmos valve.	Open carefully to reduce simulated altitude to zero.	
8.48	FD bead.	Ensure moves to top right.	

SMS 17A

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.49	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.

NB A period of 10 seconds is to elapse before carrying out Sub-item 8.50.

8.50	FD/AP switch.	Set to 'AP'.
8.51	Pump On/Off switch.	Set to 'OFF'.
8.52	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
8.53	Simulator bank control.	Rotate slowly to 50 degrees LWD.
8.54	Attitude indicator.	
	(a) FD bead.	Ensure moves up 0.125 PLUS OR MINUS 0.05 in. and right 0.47 PLUS OR MINUS 0.1 in.
	(b) Roller blind.	Ensure indicates 50 degrees LWD.
8.55	Control surfaces.	
	(a) Ailerons.	Check Port and Starboard trailing edges move respectively down and up 2.4 plus 0.4 minus 0.6 degrees.
	(b) Rudder.	Ensure neutral.
	(c) Tailplane.	Check leading edge moves down 1 PLUS OR MINUS 0.2 degrees.
8.56	Simulator bank control.	Rotate slowly to 0 degrees.
8.57	Attitude indicator.	
	(a) FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
	(b) Roller blind.	Ensure indicates straight and level.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.58	Control surfaces.	
	(a) Ailerons.	Check both trailing edges return to neutral.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Check leading edge returns to rigging position.
8.59	Test set Type 8A precess rate gyro switch.	Depress and hold.
8.60	FD bead.	Ensure remains at centre PLUS OR MINUS 1/16 in.
8.61	Control surfaces.	
	(a) Ailerons.	Check Port and Starboard trailing edges move respectively up and down 1 PLUS OR MINUS 0.2 degrees.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.62	Precess rate gyro switch.	Release.
8.63	Control surfaces.	
	(a) Ailerons.	Check both trailing edges return to neutral.
	(b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.64 8.65	FD/AP switch. PCU stab switch.	Set to 'OFF'.
8.66	Test set Type 8A.	
	(a) M2 measure switch.	Set to 'RG PITCH'.
	(b) Deflection increase rate gyro switch.	Adjust until meter M2 indicates 4.875V.
8.67	PCU stab switch.	Set to 'STAB'.
8.68	FD/AP switch.	Set to 'AP'.

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.69	Test set Type 8A.	
	(a) Rate gyro switch.	Set to 'PITCH'.
	(b) Precess rate gyro switch.	Depress and hold.

Note; Sub-item 8.70 is not applicable to aircraft fitted with Type D or E, FCC.

8.70	FD bead.	Ensure moves down 0.75 PLUS OR MINUS 0.05 in.

Note: Sub-item 8.71 is applicable only to aircraft fitted with Type D or E, FCC.

8.71	FD bead.	Ensure no movement.

Note: Sub-item 8.72(d) is not applicable to aircraft fitted with a Type D or E, FCC.

8.72	Control surfaces.	
	(a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Check leading edge moves up 0.75 PLUS OR MINUS 0.15 degrees.
	(d) Tailplane.	Check decays to datum.
8.73	Precess rate gyro switch.	Release.
8.74	FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
8.75	Control surfaces.	
	(a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Check returns to rigging position.
8.76	Simulator elevation control.	Rotate to 5 degrees NU.
8.77	Roller blind.	Ensure indicates 5 degrees NU.

SMS 17A

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

8. Functional Check (Part C) (Contd)

8.78	Control surfaces. (a) Ailerons. (b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Check leading edge moves up and then decays to rigging position.
8.79	FD/AP switch.	Set to 'OFF'.
8.80	Control surfaces. (a) Ailerons. (b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
8.81	Pitot/Static test set. (a) Vent to atmos valve. (b) Balance valve.	Close.
	(c) Pump On/Off switch.	Set to 'ON'.
	(d) Pitot valve.	Open simulate airspeed of 705 knots.
8.82	FD/AP switch.	Set to 'AP'.
8.83	Simulator elevation control.	Rotate to 0 degrees.
8.84	Control surfaces. (a) Ailerons. (b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure no movement.
8.85	Test set Type 8A precess rate gyro switch.	Depress and hold.
8.86	FD bead.	Ensure bead does not move.

FLT SYST

8. Functional Check (Part C) (Contd)

8.87	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Check leading edge moves up 0.6 PLUS OR MINUS 0.15 degrees.
8.88	Precess rate gyro switch.	Release.
8.89	FD bead.	Ensure remains at centre PLUS OR MINUS 1/16 in.
8.90	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure returns to rigging position.
8.91	Pitot/Static test set. (a) Pitot valve. (b) Pump On/Off switch. (c) Vent to atmos valve.	 Close. Set to 'OFF'. Operate to reduce simulated airspeed to zero.
8.92	FD/AP switch.	Set to 'OFF'.
8.93	PCU. (a) Stab switch.) (b) Master switch.)	Set to 'OFF'.

9. General

Note Sub-item 9.1 is applicable only to aircraft Pre Mod 2597.

9.1	Flight control computer.	Remove jumper cable, reconnect FC1 to computer.

Note Sub-item 9.2 is applicable only to aircraft Post Mod 2597.

9.2	Test socket 'J'.	Refit shorting plug.

SMS/81/384/7A

Continued

SMS 17A

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD F.2988B

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

10. Functional Check (Part D)

10.1	PCU.	
	(a) Master switch.	Set to 'ON'.
	(b) Stab switch.	Set to 'STAB'.
10.2	FD/AP switch.	Set to 'AP'.
10.3	PCU.	
	(a) Supplies M1.	Ensure shows Black.
	(b) Mode M1.	Ensure shows Auto.
10.4	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
10.5	Control surfaces.	
	(a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
10.6	Pitot/Static test set.	
	(a) Vent to atmos valve.	Close.
	(b) Pump On/Off switch.	Set to 'ON'.
	(c) Pitot valve.	Open to simulate airspeed of 380 knots.
10.7	PCU VSC.	Rotate fully up.
10.8	Attitude indicator.	
	(a) FD bead.	Ensure moves up and then returns towards centre.
	(b) AP trim. indicator.	Ensure shows nose down trim and then returns towards safety zone.
10.9	Tailplane.	Ensure leading edge moves down progressively. Note: Movement may be discontinuous and may reverse for brief periods. This is acceptable providing reversal does not exceed 0.25 degrees.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

10. Functional Check (Part D) (Contd)

10.10	PCU VSC.	Return to centre detent position.
10.11	FD/AP switch.	Set to 'OFF'.
10.12	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure returns to rigging position.
10.13	PCU VSC.	Rotate away from detent position.
10.14	FD/AP switch.	Set to 'AP'.
10.15	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
10.16	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
10.17	PCU VSC.	Rotate fully in both directions and return to centre detent position.
10.18	FD bead.	Ensure moves then returns to centre PLUS OR MINUS 1/16 in.
10.19	Control surfaces. (a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure remains stationary rigging position.
10.20	FD/AP switch.	Set to 'OFF'.
10.21	PCU track switch.	Select.

SMS 17A

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

10. Functional Check (Part D) (Contd)

10.22	Pitot/Static test set.	
	(a) Pitot valve.	Close.
	(b) Vent to atmos valve.	(i) Operate to reduce simulated airspeed to zero. (ii) Close.
	(c) Balance valve.	Open.
	(d) Static valve.	Operate in conjunction with balance valve to obtain simulated altitude of 2000 ft.
	(e) Pitot valve.	Open carefully to simulate airspeed of 380 knots.
10.23	PCU Mode M1.	Ensure shows Off.
10.24	FD bead.	Ensure at top right.
10.25	Control surfaces.	
	(a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.

11. Functional Check (Part E)

11.1	FD/AP switch.	Set to 'AP'.
11.2	PCU mode M1.	Ensure shows Auto.
11.3	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
11.4	Control surfaces.	
	(a) Ailerons.) (b) Rudder.)	Ensure at neutral.
	(c) Tailplane.	Ensure at rigging position.
11.5	Pitot/Static test set.	(i) Establish simulated airspeed of 380 knots. (ii) Establish simulated altitude of 2100 ft.

SMS 17A

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

11. Functional Check (Part E) (Contd)

11.6	FD bead.	Ensure moves down 0.15 PLUS OR MINUS 0.08 in.
11.7	Control surfaces. (a) Ailerons. (b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Check leading edge moves up 1.5 PLUS OR MINUS 0.3 degrees.
11.8	Pitot/Static test set static valve.	Operate to reduce simulated altitude to 2000 ft.
11.9	FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
11.10	Control surfaces. (a) Ailerons. (b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure returns to rigging position.
11.11	Pitot/Static test set static valve.	Operate to reduce simulated altitude to 1900 ft.
11.12	FD bead.	Ensure moves up 0.15 PLUS OR MINUS 0.08 in.
11.13	Control surfaces. (a) Ailerons. (b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Check leading edge moves down 1.5 PLUS OR MINUS 0.3 degrees.
11.14	FD/AP switch.	Set to 'OFF'.
11.15	PCU mode M1.	Ensure shows Off.
11.16	FD bead.	Ensure at top right.
11.17	Control surfaces. (a) Ailerons. (b) Rudder.	Ensure at neutral.
	(c) Tailplane.	Ensure returns to rigging position.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

11. Functional Check (Part E) (Contd)

11.18	Pitot/Static test set.	
	(a) Static valve. (b) Pitot valve.	Close.
	(c) Pump On/Off switch.	Set to 'OFF'.
	(d) Vent to atmos valve.	Open carefully to reduce simulated airspeed to zero.
	(e) Balance valve.	Open carefullv to reduce simulated altitude to zero.
	(f) Vent to atmos valve. (g) Balance valve.	Close.

12. ILS Checks

12.1	Nav display unit.	
	(a) Compass.	Synchronize.
	(b) Heading knob.	Depress and rotate to align selected heading pointer with fixed lubber.
12.2	PCU.	
	(a) Supplies MI.	Ensure shows Black.
	(b) Mode MI.	Ensure shows Off.
12.3	FD bead.	Ensure at top right.
12.4	PCU track switch.	Ensure selected.
12.5	FD/AP switch.	Set to 'AP'.
12.6	PCU mode MI.	Ensure shows Auto.
12.7	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
12.8	Nav display unit heading knob.	Depress and rotate clockwise to set selected heading pointer 130 degrees to Starboard.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

12. ILS Checks (Contd)

12.9	FD bead.	Ensure moves to right 3/8 PLUS OR MINUS 3/16 in.
12.10	Simulator bank control.	Rotate slowly RWD until FD bead is vertically above centre.
12.11	Attitude indicator.	
	(a) Roller blind.	Ensure indicates 28 PLUS OR MINUS 2 degrees RWD.
	(b) FD bead.	Ensure has moved 1/4 PLUS OR MINUS 1/8 in. up from centre.
12.12	Nav display unit heading knob.	Depress and rotate anti-clockwise to align selected heading point with fixed lubber.
12.13	FD bead.	Ensure moves to left.
12.14	Simulator bank control.	Rotate slowly to 0 degrees
12.15	FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
12.16	Nav display unit.	
	(a) Mode switch.	Set to 'ILS'.
	(b) Loc warning flag.	Ensure show Off.
	(c) GP warning flag.	
	(d) Heading knob.	Pull out and rotate to align localizer beam bar with fixed lubber.

AIR COMMS

13. ILS Checks

13.1	Test set Type 391.	
	(a) Function control.	Set to 'LOCAL'.
	(b) Tuning control.	Set to 'XTAL'.
	(c) Deflection control.	(i) Adjust to set meter to '0'.
		(ii) Adjust to set meter indication to maximum right.

Continued

SMS 17A

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

14. ILS Checks

14.1	Nav display unit. (a) Loc warning flag.	Ensure clears.
	(b) Loc beam bar.	Ensure moves to right.
14.2	FD bead.	Ensure moves to right.
14.3	Nav display unit heading knob.	Depress and rotate anti-clockwise.
14.4	FD bead.	Ensure centralizes when selected heading pointer indicates Port heading demand of 42 to 47 degrees.
14.5	Nav display unit loc beam bar.	Ensure remains to right.

AIR COMMS

15. ILS Checks

15.1	Test set Type 391 deflection control.	Adjust to set meter indication to maximum left.

NAV INSTRUMENTS

16. ILS Checks

16.1	Nav display unit loc beam bar.	Ensure move to left.
16.2	FD bead.	
16.3	Nav display unit heading knob.	Depress and rotate clockwise.
16.4	FD bead.	Ensure centralizes when selected heading pointer indicates Starboard heading demand of 42 to 47 degrees.
16.5	Nav display unit loc beam bar.	Ensure remains to left.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

AIR COMMS

17. ILS Checks

17.1	Test set Type 391 deflection control.	Adjust to set meter to '0'.

NAV INSTRUMENTS

18. ILS Checks

18.1	Nav display unit.	
	(a) Heading knob.	Depress and rotate to align selected heading pointer with fixed lubber.
	(b) Loc beam bar.	Ensure returned to datum.
18.2	FD/AP switch.	Set to 'OFF'.
18.3	PCU mode MI.	Ensure shows Off.
18.4	Pitot/Static test set.	
	(a) Pump On/Off switch.	Set to 'ON'.
	(b) Pitot valve.	Operate to simulate airspeed of 175 knots.
18.5	Throttles.	Set to mid-position and engage clutch.
18.6	Pitot/Static test set vent to atmos valve.	Operate to reduce simulated airspeed.
18.7	Throttles.	(i) Check forward movement ceases at 166 PLUS OR MINUS 4 knots. (ii) Note exact airspeed at which movement ceases.
18.8	Pitot/Static test set.	
	(a) Vent to atmos valve.	Close.
	(b) Pitot valve.	Operate to increase simulated airspeed.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

		SERVICING RECORD				
		(1)	(2)	(3)	(4)	(5)
NAV INSTRUMENTS						
18. ILS Checks (Contd)						
18.9 Throttles.	Check backward movement ceases at a simulated airspeed value 20 PLUS OR MINUS 2 knots above value noted in Sub-item 18.7.					
18.10 Pitot/Static test set.						
(a) Pitot valve.	Close.					
(b) Vent to atmos valve.	Operate to reduce simulated airspeed to 175 knots.					
18.11 FD/AP switch.	Set to 'AP'.					
18.12 PCU mode MI.	Ensure shows Auto.					
18.13 FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.					
18.14 Simulator elevation control.	Rotate to 10 degrees ND.					
18.15 FD bead.	Ensure moves up and then decays to centre PLUS OR MINUS 1/16 in.					
18.16 Throttles.	Ensure move backwards.					
18.17 Simulator elevation control.	Rotate to 5 degrees NU.					
18.18 FD/AP switch.	(i) Set to 'OFF'. (ii) Set to 'AP' when AP trim indicator pointer is at centre.					
18.19 FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.					
18.20 AP trim indicator.	Ensure pointer at centre.					
18.21 Simulator elevation control.	Rotate slowly to zero degrees.					

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

	SERVICING RECORD (1)	(2)	(3)	(4)	(5)
NAV INSTRUMENTS					
18. ILS Checks (Contd)					
18.22 FD bead. — Ensure moves up and then returns to centre within 60 to 100 seconds.					
18.23 Throttles. — Ensure move backward slightly and then gradually return to datum.					
18.24 AP trim indicator. — Ensure pointer moves down and then decays towards centre.					
18.25 PCU glide switch. — Select.					
18.26 FD bead. — Ensure moves down 0.25 PLUS OR MINUS 0.1 in. and then gradually returns to centre.					
18.27 Throttles. — (i) Ensure move backward slowly. (ii) Disengage clutch.					
18.28 Pitot/Static test set vent to atmos valve. — Operate to reduce simulated airspeed to zero.					
AIR COMMS					
19. ILS Checks					
19.1 Test set Type 391 deflection control. — Adjust to set meter indication to maximum right.					
NAV INSTRUMENTS					
20. ILS Checks					
20.1 Nav display unit loc beam bar. / 20.2 FD bead. — Ensure move right.					

SMS 17A

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

			SERVICING RECORD (1)	(2)	(3)	(4)	(5)
		AIR COMMS					
21.	ILS Checks						
21.1	Test set Type 391 deflection control.	Adjust to set meter indication to maximum left.					
		NAV INSTRUMENTS					
22.	ILS Checks						
22.1	Nav display unit loc beam bar.	Ensure move left.					
22.2	FD bead.						
		AIR COMMS					
23.	ILS Checks						
23.1	Test set Type 391.						
	(a) Deflection control.	Adjust to set meter to '0'.					
	(b) Test set.	Position as close to GP aerial as possible.					
	(c) GP aerial.	Extend.					
	(d) Function control.	Set to 'GLIDE PATH'.					
	(e) Tuning control.	Set to 'XTAL'.					
	(f) Deflection control.	Ensure meter set to '0'.					
		NAV INSTRUMENTS					
24.	ILS Checks						
24.1	Nav display unit.						
	(a) Loc warning flag.	Ensure in view.					
	(b) GP warning flag.	Ensure clears.					
	(c) GP bar.	Ensure aligned with index mark.					
24.2	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.					

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

	SERVICING RECORD				
	(1)	(2)	(3)	(4)	(5)
AIR COMMS					
25. **ILS Checks**					
25.1 Test set Type 391 deflection control. — Adjust to set meter indication to maximum left.					
NAV INSTRUMENTS					
26. **ILS Checks**					
26.1 Nav display unit GP bar. / 26.2 FD bead. — Ensure move up.					
AIR COMMS					
27. **ILS Checks**					
27.1 Test set Type 391 deflection control. — Adjust to set meter indication to maximum right.					
NAV INSTRUMENTS					
28. **ILS Checks**					
28.1 Nav display unit GP bar. / 28.2 FD bead. — Ensure move down.					
AIR COMMS					
29. **ILS Checks**					
29.1 Test set Type 391.					
(a) Deflection control. — Adjust to set meter to '0'.					
(b) Function control. / (c) Tuning control. — Set to 'OFF'.					

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

30.	**ILS Checks**	
30.1	FD/AP switch.	Set to 'OFF'.
30.2	PCU glide switch.	Ensure cancelled.
30.3	Nav display unit GP warning flag.	Ensure in view.
30.4	FD bead.	Ensure at top right.
30.5	PCU mode MI.	Ensure shows Off.
31.	**MRG Checks**	
31.1	PCU height switch.	Select.
31.2	FD/AP switch.	Set to 'AP'.
31.3	PCU mode MI.	Ensure shows Auto.
31.4	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
31.5	Simulator bank control.	Rotate to 50 degrees LWD.
31.6	Pitot/Static test set.	
	(a) Vent to atmos valve.	Close.
	(b) Pitot valve.	Operate to simulate airspeed of between 320 and 380 knots. Note: 420 to 450 knots if Type D or E FCC fitted.
31.7	FD bead.	Ensure moves right 0.47 PLUS OR MINUS 0.1 in.
31.8	Nav display unit heading knob.	Depress and rotate anti-clockwise to set selected heading pointer 75 degrees to Port.
31.9	PCU heading switch.	Select.
31.10	FD bead.	Ensure returns to centre.
31.11	PCU BAC.	Rotate fully anti-clockwise and ensure locks in third click position.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

31. MRG Checks (Contd)

31.12	FD bead.	Ensure moves left 0.12 PLUS OR MINUS 0.05 in.
31.13	Simulator bank control.	Rotate to 62 degrees LWD.
31.14	FD bead.	Ensure returns to centre.
NB	Sub-items 31.15 and 31.16 are to be carried out simultaneously.	
31.15	Pitot/Static test set.	
	(a) Pitot valve.	Close.
	(b) Vent to atmos valve.	Operate to reduce simulated airspeed to between 200 and 250 knots Note: 350 to 380 knots if Type D or E FCC fitted.
31.16	FD bead.	Ensure moves right 0.22 PLUS OR MINUS 0.1 in. at approximately 270 knots. Note: 400 knots if Type D.
31.17	Simulator bank control.	Rotate to 40 degrees LWD.
31.18	FD bead.	Ensure moves to centre.
31.19	PCU BAC.	Return to centre.
31.20	Nav display unit heading knob.	Depress and rotate to set selected heading pointer to align with fixed lubber.
31.21	Simulator bank control.	Rotate to 0 degrees.
31.22	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
31.23	Pitot/Static test set.	
	(a) Vent to atmos valve.	Close.
	(b) Pitot valve.	Operate to increase simulated airspeed to 650 knots.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

31. MRG Checks (Contd)

31.24	Simulator elevation control.	Rotate to 5 degrees NU.
31.25	FD bead.	Ensure moves down 0.2 PLUS OR MINUS 0.1 in.
31.26	AP trim indicator.	Ensure indicates nose up trim.
31.27	Simulator elevation control.	Rotate to 0 degrees.
31.28	FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
31.29	AP trim indicator.	Ensure pointer returns to centre.
31.30	PCU VSC.	Rotate fully up.
31.31	FD bead.	Ensure moves up.
31.32	AP trim indicator.	Ensure indicates nose down trim.
31.33	PCU NSC.	Return to centre detent position.
31.34	FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
31.35	AP trim indicator.	Ensure pointer returns to centre.
31.36	Pitot/Static test set.	
	(a) Pitot valve.	Close.
	(b) Vent to atmos valve.	Operate to reduce simulated airspeed to zero.
31.37	FD/AP switch.	Set to 'OFF'.
31.38	PCU attitude switch,	Select.
31.39	FD/AP switch.	Set to 'FD'.
31.40	Simulator bank control.	Rotate to 10 degrees RWD.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

31. MRG Checks (Contd)

31.41	FD bead.	Ensure moves left 0.1 PLUS OR MINUS 0.05 in.
31.42	PCU BAC.	Rotate clockwise to first marked position.
31.43	FD bead.	Ensure returns to centre PLUS OR MINUS 1/16 in.
31.44	PCU BAC.	Return to centre.
31.45	FD/AP switch.	Set to 'OFF'.
31.46	Simulator bank control.	Rotate to 0 degrees.
31.47	FD bead.	Ensure at top right.
31.48	PCU climb switch.	Select.
31.49	AP trim indicator.	Ensure indicates nose down trim.
31.50	FD/AP switch.	Set to 'AP'.
31.51	PCU mode MI.	Ensure shows Off.
31.52	FD bead.	Ensure at top right.
31.53	FD/AP switch.	(i) Set to 'OFF'. (ii) Set to 'FD'.
31.54	PCU mode MI.	Ensure shows DIR.
31.55	FD bead.	Ensure moves vertically above centre.
31.56	Pitot/Static test set.	
	(a) Balance valve.	Open.
	(b) Static valve.	Operate to gradually increase simulated altitude.
31.57	FD bead.	Ensure moves vertically down.
31.58	Pitot/Static test set.	
	(a) Static valve.	Close.
	(b) Vent to atmos valve.	Operate to decrease simulated altitude.

Continued

SMS 17A

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

31. MRG Checks (Contd)

31.59	FD bead.	Ensure returns to vertically above centre.
31.60	Nav display unit heading knob.	Depress and rotate clockwise to set selected heading pointer 170 degrees to Starboard.
31.61	FD bead.	Ensure does not move.

NB Sub-items 31.62 and 31.63 are to be carried out simultaneously.

31.62	Pitot/Static test set.	
	(a) Vent to atmos valve.	Close.
	(b) Balance valve.	Close.
	(c) Pitot valve.	Operate to increase simulated airspeed.
31.63	FD bead.	Ensure moves right 0.42 PLUS OR MINUS 0.1 in. when airspeed is approximately 275 knots.
31.64	Simulator bank control.	Rotate to 45 degrees RWD.
31.65	FD bead.	(i) Ensure above centre. (ii) Note position.
31.66	Simulator bank control.	Rotate to 0 degrees.
31.67	Nav display unit heading knob.	Depress and rotate anti-clockwise to set selected heading pointer to align with fixed lubber.
31.68	Simulator elevation control.	Rotate to 10 degrees NU.
31.69	FD bead.	Ensure moves down slightly and then returns to position noted in Sub-item 31.65.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

32. Speed and Height Checks

32.1	Pitot/Static test set pitot valve.	(i)	Operate and ensure FD bead moves and then steadies at centre when simulated airspeed is 565 knots. (o.89M).
		(ii)	Operate to establish FD bead 1/8 in. above centre.
32.2	FD/AP switch.		Set to 'OFF'.
32.3	PCU climb switch.	(i)	Cancel.
		(ii)	Select.
32.4	FD/AP switch.		Set to 'FD'.
32.5	FD bead.		Ensure moves up and then slowly returns to centre.
32.6	Simulator elevation control.		Rotate to 0 degrees.
32.7	FD bead.		Ensure moves up and then returns to centre.
32.8	PCU VSC.		Rotate fully down.
32.9	FD bead.		Ensure does not move.
32.10	PCU VSC.		Return to centre detent position.
32.11	FD bead.		Ensure does not move.
32.12	Pitot/Static test set.		
	(a) Pitot valve.		Close.
	(b) Vent to atmos valve.		Operate to reduce simulated airspeed to zero.
32.13	FD/AP switch.		Set to 'OFF'.
32.14	PCU attitude switch.		Select.

SMS 17A

Continued

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

32. Speed and Height Checks (Contd)

32.15	FD/AP switch.	Set to 'AP'.
32.16	PCU Mode MI.	Ensure shows Auto.
32.17	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
32.18	PCU VSC.	Rotate fully up.
32.19	FD bead.	Ensure moves up.
32.20	PCU VSC.	Rotate fully down.
32.21	FD bead.	Ensure moves down.
32.22	PCU VSC.	Return to centre.
32.23	FD bead.	Ensure moves to centre.
32.24	PCU BAC.	Rotate fully anti-clockwise.
32.25	FD bead.	Ensure moves to left.
32.26	PCU BAC.	Rotate fully clockwise.
32.27	FD bead.	Ensure moves to right.
32.28	PCU BAC.	Return to centre.
32.29	FD bead.	Ensure moves to centre.
32.30	FD/AP switch.	Set to 'OFF'.
32.31	PCU height switch.	Select.
32.32	FD bead.	Ensure at top right.
32.33	Pitot/Static test set.	
	(a) Vent to atmos valve.	Close.
	(b) Balance valve.	Open.
	(c) Static valve.	Operate to increase simulated altitude to 2000 ft.
32.34	FD/AP switch.	Set to 'AP'.
32.35	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

32. Speed and Height Checks (Contd)

32.36	Pitot/Static test set. (a) Static valve.	Close.
	(b) Vent to atmos valve.	Operate to reduce simulated altitude to 1500 ft.
32.37	FD bead.	Ensure moves up.
32.38	FD/AP switch.	Set to 'OFF'.
32.39	Pitot/Static test set vent to atmos valve.	Operate to reduce simulated altitude to zero.
32.40	Nav display unit heading knob.	Depress and rotate to align selected heading pointer with fixed lubber.
32.41	FD/AP switch.	Set to 'AP'.
32.42	PCU heading switch.	Select.
32.43	FD bead.	Ensure at centre PLUS OR MINUS 1/16 in.
32.44	Nav display unit heading knob.	Depress and rotate clockwise to set selected heading pointer 20 degrees to Starboard.
32.45	FD bead.	Ensure moves right.
32.46	Nav display unit heading knob.	Depress and rotate anti-clockwise to set selected heading pointer 20 degrees to Port.
32.47	FD bead.	Ensure moves left.
32.48	Nav display unit heading knob.	Depress and rotate to align selected heading pointer with fixed lubber.
32.49	FD bead.	Ensure moves to centre.
32.50	FD/AP switch.	Set to 'OFF'.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

32. Speed and Height Checks (Contd)

32.51	PCU climb switch.	Select.
32.52	Pitot/Static test set.	
	(a) Vent to atmos valve.	Close.
	(b) Balance valve.	
	(c) Pitot valve.	Operate to increase simulated airspeed to 200 knots.
32.53	FD/AP switch.	Set to 'FD'.
32.54	FD bead.	Ensure moves to vertically above centre.
32.55	Pitot/Static test set pitot valve.	Operate to increase simulated airspeed to 400 knots.
32.56	FD bead.	Ensure does not move.
32.57	Pitot/Static test set.	
	(a) Port valve.	Close.
	(b) Vent to atmos valve.	(i) Operate to reduce simulated airspeed to zero.
		(ii) Close.
	(c) Balance valve.	Open.
	(d) Pump On/Off switch.	Set to 'OFF'.
32.58	Nav display unit heading knob.	Depress and rotate clockwise to set selected heading pointer 20 degrees to Starboard.
32.59	FD bead.	Ensure does not move.
32.60	Nav display unit heading knob.	Depress and rotate anti-clockwise to set selected heading pointer 20 degrees to Port.
32.61	FD bead.	Ensure does not move.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

32. Speed and Height Checks (Contd)

32.62	Nav display unit heading knob.	Depress and rotate to align selected heading pointer with fixed lubber.
32.63	FD/AP switch.	Set to 'OFF'.
32.64	PCU. (a) Stab switch. (b) Master switch.	Set to 'OFF'.
	(c) Supplies MI. (d) Mode MI.	Ensure show Off.
32.65	FD bead.	Ensure at top right.
32.66	Nav display unit mode selector.	Set to 'COMP'.

33. General

33.1	Instrument master switch.	Set to 'OFF'.
33.2	MRG On/Off switch.	
33.3	Mk 1A MRG simulator.	(i) Disconnect. (ii) Remove.
33.4	Mk 2 MRG.	Reconnect aircraft cables to connectors J203 and J204.
33.5	Mk 1 MRG.	Reconnect aircraft cables to connectors FS27 and FS28.
33.6	Instrument master switch.	Set to 'ON'.
33.7	MRG On/Off switch.	
33.8	Attitude indicator warning flag.	Ensure clears within 180 seconds. (Mk 2 MRG) or 17 to 35 seconds (Mk 1 MRG).

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

33. General (Contd)

33.9	Mk 2 MRG first line test set.	
	(a) Motor Off switch.	(i) Motor off MRG until a nose down attitude of 5 degrees is indicated on attitude indicator.
		(ii) Set to 'OFF'.
	(b) Erection mode switch.	Set to 'NORMAL'.
33.10	Attitude indicator.	Check time taken for indication to move from 4 to 1 degrees is between 70 and 150 seconds.
33.11	Mk 2 MRG first line test set.	
	(a) Motor Off switch.	(i) Motor off MRG until a nose up attitude of 5 degrees is indicated on attitude indicator.
		(ii) Set to 'OFF'.
	(b) Erection mode switch.	Set to 'NORMAL'.
33.12	Attitude indicator.	Check time taken for indication to move from 4 to 1 degree is between 70 and 150 seconds.
33.13	Mk 2 MRG first line test set.	
	(a) Motor Off switch.	(i) Motor off MRG until a right wing low attitude of 5 degrees is indicated on attitude indicator.
		(ii) Set to 'OFF'.
	(b) Erection mode switch.	Set to 'NORMAL'.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

33. General (Contd)

33.14	Attitude indicator.	Check time taken for indication to move from 4 to 1 degree is between 70 and 150 seconds.
33.15	Mk 2 MRG first line test set.	
	(a) Motor off switch.	(i) Motor off MRG until a left wing low attitude of 5 degrees is indicated on attitude indicator. (ii) Set to 'OFF'.
	(b) Erection mode switch.	Set to 'NORMAL'.
33.16	Attitude indicator.	Check time taken for indication to move from 4 to 1 degree is between 70 and 150 seconds.

NB Sub-items 33.17 to 33.25 inclusive are applicable only if a Mk 1D or E MRG is fitted.

33.17	Test set PL4.	Remove shorting plug and connect to test point J.
33.18	Type 8A test set MRG Motor Off switch.	(i) Motor off MRG until a nose down attitude of 4 degrees is indicated on attitude indicator. (ii) Set to 'NORMAL'.
33.19	Attitude indicator.	Check time taken for indication to move from 4 to 1 degree is between 50 and 70 seconds.
33.20	Type 8A test set MRG Motor Off switch.	(i) Motor off MRG until a nose up attitude is indicated on attitude indicator. (ii) Set to 'NORMAL'.

SMS 17A

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

NAV INSTRUMENTS

33. General (Contd)

33.21	Attitude indicator.	Check time taken for indication to move from 4 to 1 degree is between 50 and 70 seconds.
33.22	Type 8A test set MRG Motor Off switch.	(i) Motor off MRG until a right wing low attitude is indicated on attitude indicator. (ii) Set to 'NORMAL'.
33.23	Attitude indicator.	Check time taken for indication to move from 4 to 1 degree is between 50 and 70 seconds.
33.24	Type 8A test set MRG Motor Off switch.	(i) Motor off MRG until a left wing low attitude is indicated on attitude indicator. (ii) Set to 'NORMAL'.
33.25	Attitude indicator.	Check time taken for indication to move from 4 to 1 degree is between 50 and 70 seconds.
33.26	MRG On/Off switch.	Set to 'OFF'.
33.27	Instrument master switch.	
33.28	Mk 2 MRG first line test set.	(i) Disconnect. (ii) Remove.
33.29	Electronic unit. (Mk 2 MRG).	Refit blanking cap to test point 'Q'.
33.30	Type 8A test set.	
	(a) Connector PL2.	Disconnect and remove from test point FC5 and FCC.
	(b) Connector. PL3.	Disconnect and remove from aircraft test points F and L.
	(c) Connector PL4.	Disconnect and remove from aircraft test point J.

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

			SERVICING RECORD				
			(1)	(2)	(3)	(4)	(5)
	NAV INSTRUMENTS						
33.	General (Contd)						
33.31	Flight control computer.	Fit blanking cap to FC5.					
33.32	Aircraft test points.						
	(a) F and L.	Fit blanking caps.					
	(b) J.	Fit shorting plug.					
33.33	Mk 4 Pitot/ Static test set.	(i) Disconnect. (ii) Remove.					
	AIR COMMS						
34.	General						
34.1	ILS test set Type 391.	Remove.					
34.2	ILS master switch.	Set to 'OFF'.					
34.3	ILS channel switch.						
34.4	External power supplies. (Ac and dc).	(i) Switch off. (ii) Disconnect.					
	AIRFRAME						
35.	General						
35.1	Hydraulic ground rigs.	(i) Switch off. (ii) Remove.					
35.2	Control surface protractors.	Remove.					
35.3	Tailplane feel system.	Switch off.					

SMS 17A

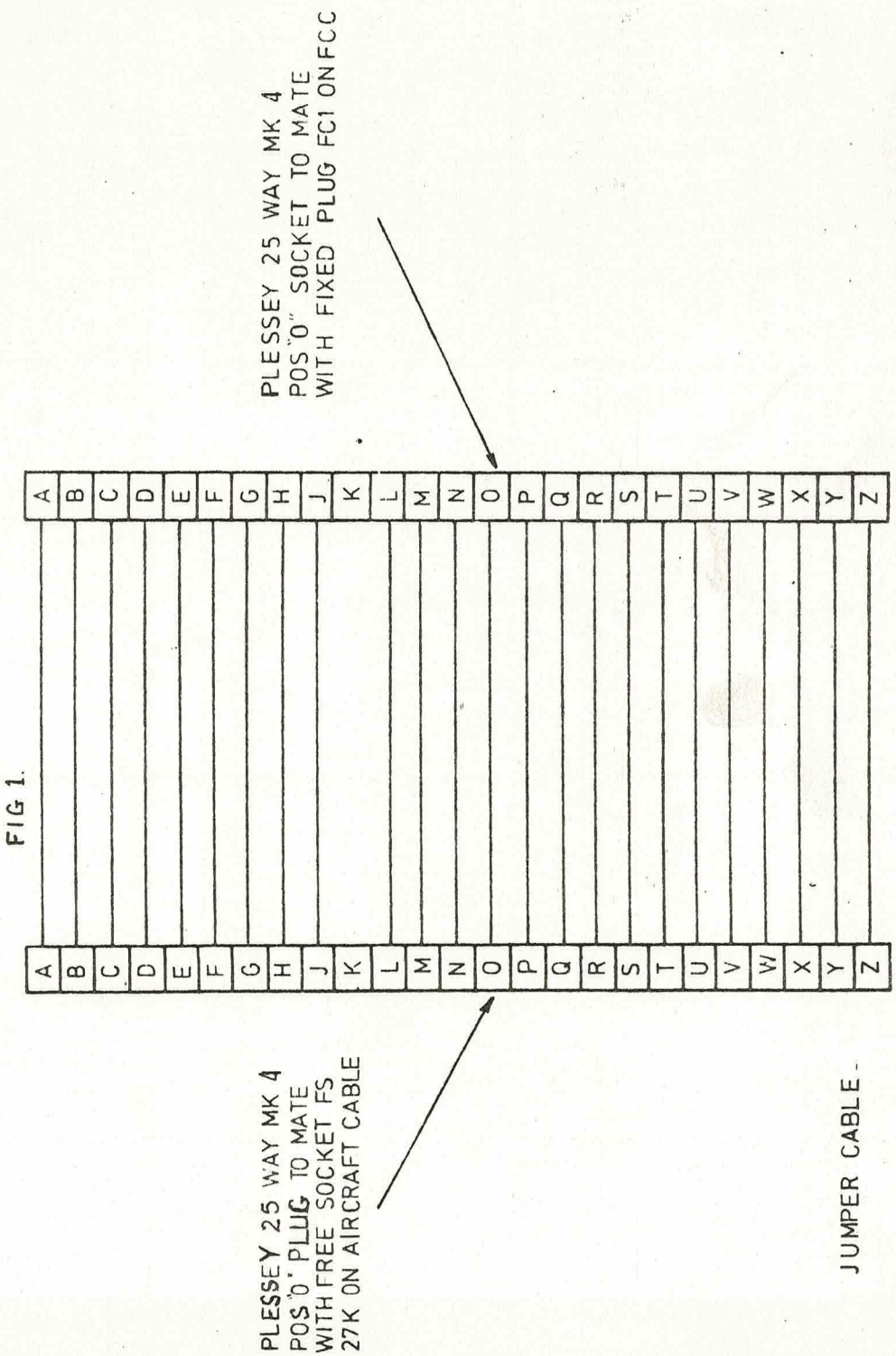
PLESSEY 25 WAY MK 4
POS "O" SOCKET TO MATE
WITH FIXED PLUG FC1 ON FCC
A B C D E F G H J K L M N O P Q R S T U V W X Y Z
A B C D E F G H J K L M N O P Q R S T U V W X Y Z
PLESSEY 25 WAY MK 4
POS "O" PLUG TO MATE
WITH FREE SOCKET FS
27K ON AIRCRAFT CABLE
JUMPER CABLE

FIG 1.